

MidAmerican Energy Company MVP Transmission Projects Update



**IUB Workshop
August 28, 2012**

Agenda

- MidAmerican's Multi-Value Projects (“MVP”) Update
- General Project Information
- Route Study
- Engineering
- Right of Way (ROW) Activity
- Construction Concepts
- Schedule

MidAmerican Multi-Value Projects

- Customer and Regional Benefits of MidAmerican's MVPs
 - Reduced Production Energy Costs
 - Congestion relief
 - Relieves congestion for existing generation in SW Minnesota and NW Iowa
 - Relieves existing transmission congestion in Iowa, Illinois, and Missouri
 - Reliability
 - Completes second 345 kV path across Iowa improving reliability and operational flexibility
 - Improved reliability for Waterloo, Fort Dodge, Ottumwa, and Galesburg areas
 - Renewable generation
 - Allows integration and export of additional wind generation across Iowa
 - Regional delivery of renewable generation from west to east across Iowa

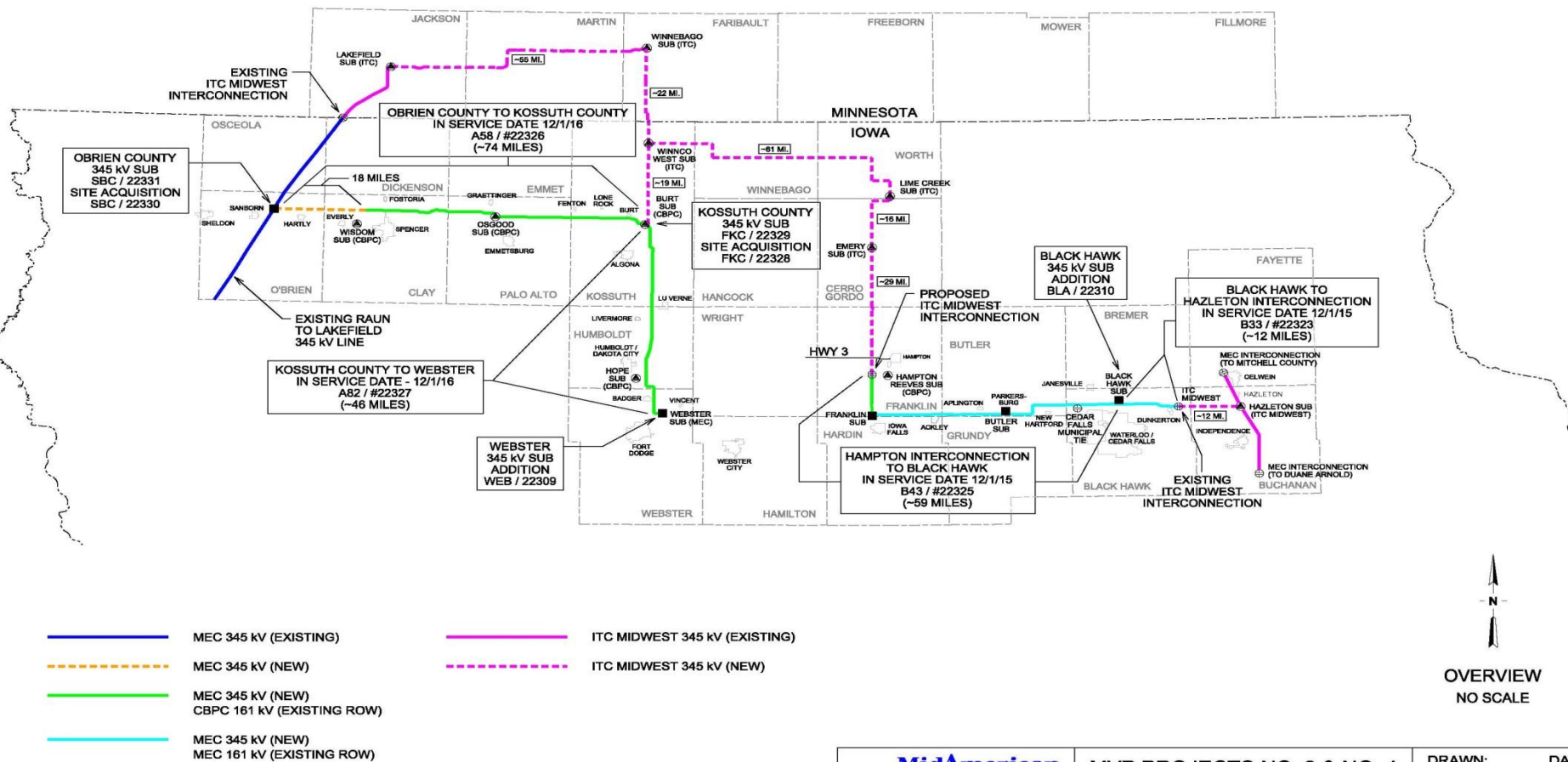
MidAmerican Multi-Value Projects

- Four MVP projects involving MidAmerican approved by MISO Board of Directors on December 8, 2011
- MVPs with partial MidAmerican ownership
 - O'Brien – Kossuth – Webster Counties 345 kV Line – MVP No. 3
 - Emery – Black Hawk – Hazleton 345 kV Line – MVP No. 4
 - Ottumwa – Adair, MO 345 kV Line – MVP No. 7
 - Oak Grove – Galesburg – Fargo, IL 345 kV Line – MVP No. 16
- Preliminary engineering and ROW services pending on MVP 7 & 16
- First two projects and focus is on MVP 3 and 4
- Bids and award of work packages have been made for:
 - Engineering Services
 - Right-of-Way Services
- Communicating with ITC Midwest and Corn Belt on regular basis to coordinate work on these projects.

MidAmerican Multi-Value Projects

- MVP-3 Project: New substation in O'Brien County to a new substation near Burt, then to an existing substation in Webster County
- MVP-4 Project: Interconnect with ITC near Hampton, IA to near Franklin County substation to Black Hawk County substation to interconnect with ITC near Dunkerton, IA
- Working with Corn Belt to use existing 161 kV line route
- New 345 kV and 161 kV line on monopole structures with no “guys”
- Project Summary:
 - MVP-3: 120 miles of 345 kV and 161 kV double circuit, two new substations, modification to one existing substation, and likely will use most of the existing Corn Belt 161 kV line route
 - MVP-4: 71 miles of 345 kV and 161 kV double circuit, modification to one substation, and likely will use most of the existing MEC and Corn Belt 161 kV line route

MVP No. 3 and 4 Map



OVERVIEW
NO SCALE

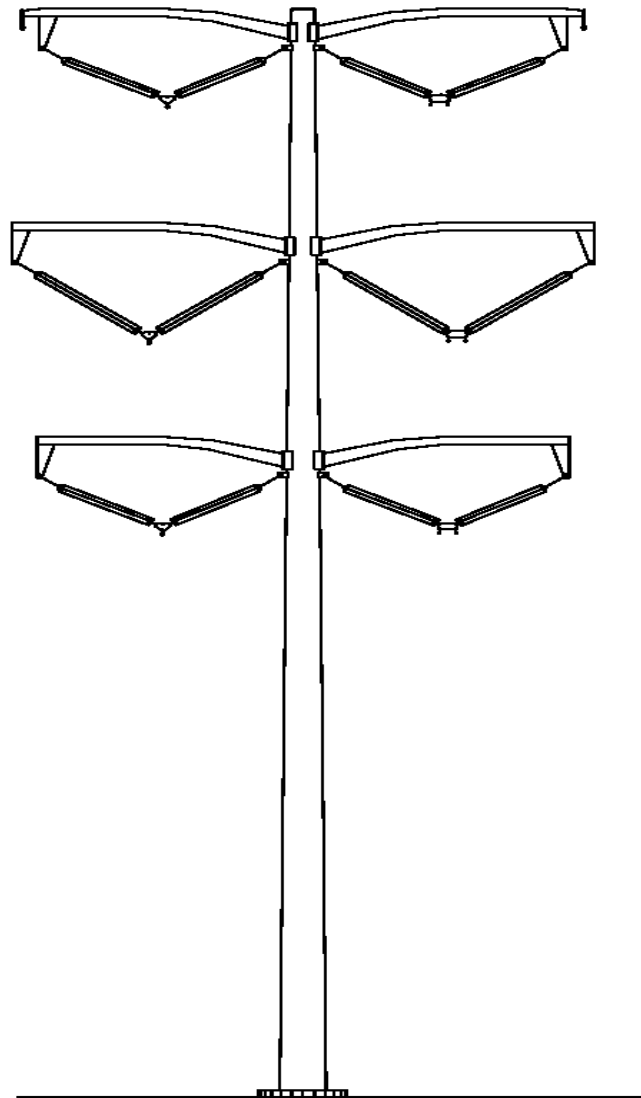
MVP Route Study and Engineering

- MEC, through tender process, selects an engineering firm to perform the route study and engineering work for the projects
- Route study criteria: Iowa Code 478.18 and IAC 199-11
- Project design for a ROW width of 150 feet
- MVP-3 project to likely use existing Corn Belt 161 kV line route as much as practical for most of the 120 mile route.
- MVP-3 project to have 18 miles of new ROW from O'Brien County substation to existing Corn Belt 161 kV line near Wisdom.
- Working with Corn Belt on routing around Osgood, Burt, and Hope substations as well as other areas along the route
- MVP-4 project to likely use existing Corn Belt 161 kV line route in Franklin County and existing MEC 161 kV line route in Franklin, Butler, and Black Hawk Counties

MVP Engineering

- Preparing Exhibits A, B, and C for nine county franchises per IAC 199-11.2 (478)
- Establishing design criteria for structures, conductors, and substations and coordinating designs with Corn Belt and ITC
- Performing electric studies to support the design of a double circuit 345 kV and 161 kV line, utilizing inputs from Corn Belt and ITC
- Performed aerial photography and mapping to support routing and engineering considerations
- Will issue bid package to support an RFP from qualified bidders
- Existing 161 kV H-frame structures to be replaced by single pole design to have 345 kV and 161 kV circuits
- Single pole design with longer spans and less land impact are likely to be more acceptable to land owners and tenants

Typical 345 and 161 kV Structure



Right of Way Activities

- MEC, through tendering process, selects a contractor for ROW work
- Started title review and survey work and will prepare mailing list and notices for informational meetings for both projects
- Preparing acquisition plats, exhibits, and legal descriptions for easements
- Scheduled information meetings with the IUB for November 8-9 for Franklin, Butler, and Black Hawk Counties and December 4-6 for O'Brien, Clay, Palo Alto, Kossuth, Humboldt, and Webster Counties.
- Assumed over 800 parcels of land will be affected
- Plan to utilize existing methodology for compensating land owners
- Begin easement acquisition following public meetings
- File franchises during the first quarter of 2013

Construction Concepts

- Currently pre-qualifying construction, engineering, and environmental firms
- Utilizing project design and experience from other companies within MidAmerican Energy Holdings Company that have performed similar work in other states.
- Complete work scope to issue to multiple vendors for engineering, procurement, and construction (EPC) bids in August 2012
- Receive EPC bids in November 2012 and evaluate terms, designs, and vendor's capabilities
- Anticipate award of work to an EPC vendor in early 2013
- Have all right of way easements completed prior to construction
- Most permits to be secured by EPC vendor

MVP Project Summary Schedule

Project	MEC ROW and Line Distance	Siting and Right-of-Way	Construction	In-Service Date
Franklin –Black Hawk Counties – MVP No. 4	71 miles	2012-2014	July 2014 – Nov. 2015	December 1, 2015
O’Brien -Kossuth – Webster Counties – MVP No. 3	120 miles	2012-2014	Nov. 2014 - Nov. 2016	December 1, 2016
Oak Grove – Galesburg , IL – MVP No. 16	32 miles	2013-2015	2015-2016	December 1, 2016
Ottumwa – Adair, MO – MVP No. 7	17 miles	2014-2016	2016-2017	June 1, 2017

- The project time-lines are based on in-service dates approved by MISO

Questions?

